

Appl. No.: 10/572,710
Reply to Office Action of: 09/30/2009

REMARKS

Claims 1-9, 11, and 13-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kaplan (US 6,690,358) in view of Salmi et al. (US 7,158,626). Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kaplan (US 6,690,358) in view of Salmi et al. (US 7,158,626) and Kalinski et al. (US 2003/0174307). The examiner is requested to reconsider these rejections.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Claim 1 has been amended above to clarify applicants' claimed invention. Claim 1 recites, *inter alia*, "wherein the display has a first area and the bar has a second area, the second area being smaller than the first area".

Embodiments of the present invention relate to a mobile cellular telephone 10 which includes an incline sensor 16 that is arranged to detect the inclination of the mobile telephone 10. The mobile telephone 10 also includes a processor 12 which is arranged to receive signals from the incline sensor 16. When the mobile telephone 10 is placed in an inclinometer mode (i.e. a mode where the telephone acts as an instrument for enabling a user to measure the inclination of the mobile telephone) the processor 12 receives signals from the incline sensor 16 and controls a display 14 to display an item whose position is dependent upon the inclination measured by the incline sensor 16. As mentioned on page 4, lines 9 to 13 the

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mobile telephone can emulate a spirit level and thereby enable a user to measure the inclination of a surface (please see page 5, lines 15 to 34).

In contrast, Kaplan relates to cursor control in a display of a hand-held device (column 1, lines 1 to 2). Kaplan discloses a special orientation sensor within a device which provides for movement of a screen cursor in response to changes in the spatial orientation of the device (abstract).

Kaplan specifically discloses a portable digital assistant (PDA) 100 that includes a screen 110, activation buttons 12, 13, 14 and accelerometers 10, 11. The screen 110 may display a cursor 120 and pushing one or more of the buttons 12, 13, 14 may enable movement of the cursor 120 about the screen 110. The accelerometers 10, 11 provide an output signal that is related to the angle of the accelerometers' major axis away from a horizontal plane when the PDA is in a "neutral position". The output signal of the accelerometer 10, 11 is received and processed by the processor 17 which may control the screen 110 accordingly.

The "neutral position" is described in Kaplan at column 2, lines 46 to 55 as "when PDA 100 is held in a position that is tilted upwards to facilitate viewing of screen 100, say 30 degrees above the horizon".

If button 13 is pushed, the cursor 120 becomes responsive to the orientation of the PDA 100. As mentioned on column 4, lines 5 to 19, the relationship for the movement of the cursor 120 in response to tilting the PDA 100 may be one in which the cursor acts like an air bubble in a carpenter's level.

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If button 14 is pressed, the processor 17 may use the accelerometer 10, 11 output signal to control the panning of an image displayed on the screen 110 (as opposed to controlling the cursor).

Applicants respectfully submit that the examiner's analysis is incorrect. For example, the examiner's allegation "Therefore it would be obvious to one of ordinary skill in the art to modify the teachings of Kaplan so that the actual display emulated a spirit level, since Kaplan suggests doing such a thing", is not correct. Kaplan merely discloses "There are, of course, many relationships that can be selected for the movement of cursor 120 in response to tilting or rotation of the PDA 100. The one that appears to be most natural is one which treats cursor 120 almost like an air bubble in a carpenter's level" (please see col. 4, lines 5 to 7). It is clear from this passage that Kaplan is solely concerned with controlling movement of a cursor on a display and there is no suggestion that the display should be modified to emulate a spirit level (i.e. to provide a calibrated device). The examiner appears to be ignoring the teaching of Kaplan (which is solely dedicated to controlling a cursor on a display) and instead pursuing a line of argument which is based on impermissible hindsight knowledge of embodiments of the present invention.

The examiner argues that "portable digital spirit levels are widely known in the market place". Applicants respectfully disagree. Applicants request the examiner to substantiate his allegation that 'portable digital spirit levels are widely known in the market place' with documentary evidence. The

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examiner is requested to cite a reference in support of his position.

Additionally, Kaplan also does not disclose an "inclinometer mode" which provides an indication to a user of the incline of a mobile phone. There is no disclosure whatsoever in Kaplan of an inclinometer mode.

Furthermore, applicants respectfully submit that it is incomprehensible why a skilled person in the art would look to Kaplan to emulate a spirit level for indicating incline when Kaplan clearly teaches away from indicating incline of a device.

In Kaplan, there is no disclosure whatsoever of a bar displayed by the display, having an area smaller than the display. Therefore, in embodiments of the present invention, it is clear that the movement of the item may be restricted to being within the bar within the display and with an area smaller than that of the display. It would be contrary to the teaching of Kaplan to restrict the movement of the cursor to within a bar since it would render the cursor unusable. In particular, the cursor would be prevented from accessing and selecting items which are positioned outside of the bar.

Furthermore, Kaplan discloses a "neutral position" of a PDA at a predetermined angle of 30 degrees above horizon (column 2, line 46 to column 3, line 10). The neutral position is disclosed as being the position at which a zero force signal is present due to each accelerometer axis being orthogonal to the Earth's gravitational force. The cursor is therefore stationary when the PDA is held to facilitate viewing of the

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PDA screen. Therefore Kaplan clearly relates to enabling user-friendly cursor positioning and control on a PDA display and therefore teaches away from measuring an incline. Contrastingly, embodiments of the present invention allow a mobile phone display to be used to measure or correct an incline of a plane surface (i.e. with respect to a horizontal plane) that supports the mobile telephone (page 5, lines 9 to 13) when in an inclinometer mode.

Kaplan therefore also teaches away from emulating a spirit level. A spirit level has a bubble which is centred in a bar when the bar is horizontal. Since Kaplan only centres the cursor at a 30 degree angle from a horizontal plane, the PDA of Kaplan cannot emulate a spirit level. It is therefore clear that Kaplan merely discusses a spirit level as an analogy to help illustrate the movement of a cursor with respect to the movement of the PDA (away from a plane that is at 30 degrees from horizontal).

Additionally, it would not be obvious to a person skilled in the art to adapt Kaplan to include an inclinometer mode, since Kaplan is only concerned with the control of a cursor. Kaplan is not concerned with adding new functional modes to a hand held device.

The examiner admits that Kaplan fails to teach wherein a display has a first area and a bar has a second area, wherein the second area is smaller than the first area.

Salmi merely discloses a communications terminal 100 for a trunked radio network such as Tetra. As illustrated in fig. 6, the terminal 100 includes a display 121 that may display a

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scroll bar 62. The scroll bar 62 can be used to indicate to the user of the calling terminal that more selections can be viewed than the one presently shown on the display 121 (please see col. 7, lines 7 to 9).

Applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In particular, it would not be obvious to a person skilled in the art to combine the teachings of Kaplan and Salmi because such a combination would be against the teaching of Kaplan. As mentioned above, Kaplan is solely concerned with controlling movement of a cursor. It would not be obvious to combine the teachings of Kaplan and Salmi since placing the cursor of Kaplan in the scroll bar 62 of Salmi would result in a graphical user interface where vast areas of the display would be inaccessible to the cursor. The combination of Kaplan and Salmi would therefore result in a device with poor cursor control which is clearly contrary to the teaching of Kaplan.

Furthermore, even if, for the sake of argument, Kaplan and Salmi were combined as alleged by the examiner, the resulting device would not fall within the scope of the independent claims. If the cursor of Kaplan was placed in the scroll bar 62 of Salmi, the resulting device would not include the feature "the position of the item within the bar representative of the sense and amount of inclination of the mobile cellular telephone in the first plane" as recited in claim 1. As mentioned above, the scroll bar 62 of Salmi is used to indicate to the user of the calling terminal that more selections can be viewed than the one presently shown on the

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display 121. If the cursor of Kaplan was placed in the scroll bar 62 of Salmi, a change in inclination would result in a different selection being displayed on the display and the position of the cursor in the scroll bar 62 would not indicate the sense and amount of inclination, but rather the position of the displayed content within the overall content.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. (see MPEP 2143.01, page 2100-98, column 1). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination (see MPEP 2143.01, page 2100-98, column 2). A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. (see MPEP 2143.01, page 2100-99, column 1) Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). >See also Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.)

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In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide a mobile cellular telephone comprising ... a processor configured to ... control the display to display, to a user of the mobile cellular telephone, a bar and an item, at a position within the bar dependent upon the received indication, the position of the item within the bar representative of the sense and amount of inclination of the mobile cellular telephone in the first plane, wherein the display has a first area and the bar has a second area, the second area being smaller than the first area, as claimed in claim 1. The features of claim 1 are not disclosed or suggested in the art of record. Therefore, claim 1 is patentable and should be allowed.

Though dependent claims 2-10, 13, 14, and 24 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 1. However, to expedite prosecution at this time, no further comment will be made.

Claim 11 has been amended above to clarify applicants' claimed invention. Claim 11 recites, *inter alia*, "wherein the display has a first area and the first bar has a second area, the second area being smaller than the first area".

Similar to the arguments presented above with respect to claim 1, there is no disclosure whatsoever in Kaplan of an inclinometer mode, and Kaplan clearly teaches away from indicating incline of a device. Kaplan clearly relates to

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enabling user-friendly cursor positioning and control on a PDA display and therefore teaches away from measuring an incline. Additionally, it would not be obvious to a person skilled in the art to adapt Kaplan to include an inclinometer mode, since Kaplan is only concerned with the control of a cursor.

Applicants request the examiner to substantiate his allegation that 'portable digital spirit levels are widely known in the market place' with documentary evidence. The examiner is requested to cite a reference in support of his position.

Additionally, applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In particular, it would not be obvious to a person skilled in the art to combine the teachings of Kaplan and Salmi because such a combination would be against the teaching of Kaplan. As mentioned above, Kaplan is solely concerned with controlling movement of a cursor. It would not be obvious to combine the teachings of Kaplan and Salmi since placing the cursor of Kaplan in the scroll bar 62 of Salmi would result in a graphical user interface where vast areas of the display would be inaccessible to the cursor. The combination of Kaplan and Salmi would therefore result in a device with poor cursor control which is clearly contrary to the teaching of Kaplan.

In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in

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the art, to provide the features of claim 11. Therefore, claim 11 is patentable and should be allowed.

Claim 15 recites, *inter alia*, "wherein the display has a first area and the bar has a second area, the second area being smaller than the first area".

Similar to the arguments presented above with respect to claim 1, there is no disclosure whatsoever in Kaplan of an inclinometer mode, and Kaplan clearly teaches away from indicating incline of a device. Kaplan clearly relates to enabling user-friendly cursor positioning and control on a PDA display and therefore teaches away from measuring an incline. Additionally, it would not be obvious to a person skilled in the art to adapt Kaplan to include an inclinometer mode, since Kaplan is only concerned with the control of a cursor.

Applicants request the examiner to substantiate his allegation that 'portable digital spirit levels are widely known in the market place' with documentary evidence. The examiner is requested to cite a reference in support of his position.

Additionally, applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In particular, it would not be obvious to a person skilled in the art to combine the teachings of Kaplan and Salmi because such a combination would be against the teaching of Kaplan. As mentioned above, Kaplan is solely concerned with controlling movement of a cursor. It would not be obvious to combine the teachings of Kaplan and Salmi since placing the

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cursor of Kaplan in the scroll bar 62 of Salmi would result in a graphical user interface where vast areas of the display would be inaccessible to the cursor. The combination of Kaplan and Salmi would therefore result in a device with poor cursor control which is clearly contrary to the teaching of Kaplan.

In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide the features of claim 15. Therefore, claim 15 is patentable and should be allowed.

Though dependent claims 16-23 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 15. However, to expedite prosecution at this time, no further comment will be made.

Claim 25 has been amended above to clarify applicants' claimed invention. Claim 25 recites, *inter alia*, "wherein the display has a first area and the bar has a second area, the second area being smaller than the first area".

Similar to the arguments presented above with respect to claim 1, there is no disclosure whatsoever in Kaplan of an inclinometer mode, and Kaplan clearly teaches away from indicating incline of a device. Kaplan clearly relates to enabling user-friendly cursor positioning and control on a PDA display and therefore teaches away from measuring an incline. Additionally, it would not be obvious to a person skilled in the art to adapt Kaplan to include an inclinometer

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mode, since Kaplan is only concerned with the control of a cursor.

Applicants request the examiner to substantiate his allegation that 'portable digital spirit levels are widely known in the market place' with documentary evidence. The examiner is requested to cite a reference in support of his position.

Additionally, applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In particular, it would not be obvious to a person skilled in the art to combine the teachings of Kaplan and Salmi because such a combination would be against the teaching of Kaplan. As mentioned above, Kaplan is solely concerned with controlling movement of a cursor. It would not be obvious to combine the teachings of Kaplan and Salmi since placing the cursor of Kaplan in the scroll bar 62 of Salmi would result in a graphical user interface where vast areas of the display would be inaccessible to the cursor. The combination of Kaplan and Salmi would therefore result in a device with poor cursor control which is clearly contrary to the teaching of Kaplan.

In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide the features of claim 25. Therefore, claim 25 is patentable and should be allowed.

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Claim 26 recites, *inter alia*, "wherein the display has a first area and the bar has a second area, the second area being smaller than the first area".

Similar to the arguments presented above with respect to claim 1, there is no disclosure whatsoever in Kaplan of an inclinometer mode, and Kaplan clearly teaches away from indicating incline of a device. Kaplan clearly relates to enabling user-friendly cursor positioning and control on a PDA display and therefore teaches away from measuring an incline. Additionally, it would not be obvious to a person skilled in the art to adapt Kaplan to include an inclinometer mode, since Kaplan is only concerned with the control of a cursor.

Applicants request the examiner to substantiate his allegation that 'portable digital spirit levels are widely known in the market place' with documentary evidence. The examiner is requested to cite a reference in support of his position.

Additionally, applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In particular, it would not be obvious to a person skilled in the art to combine the teachings of Kaplan and Salmi because such a combination would be against the teaching of Kaplan. As mentioned above, Kaplan is solely concerned with controlling movement of a cursor. It would not be obvious to combine the teachings of Kaplan and Salmi since placing the cursor of Kaplan in the scroll bar 62 of Salmi would result in a graphical user interface where vast areas of the display

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would be inaccessible to the cursor. The combination of Kaplan and Salmi would therefore result in a device with poor cursor control which is clearly contrary to the teaching of Kaplan.

In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide the features of claim 26. Therefore, claim 26 is patentable and should be allowed.

Claims 27 and 28 have been added above to further claim the features recited therein. Claim 27 is supported by the description (as published by WIPO) on page 5, lines 15 to 24. Claim 28 is supported by the description (as published by WIPO) on page 4, lines 3 to 7.

Applicants submit that neither Kaplan nor Salmi disclose or suggest "wherein movement of the item within the bar indicates rotation of the mobile cellular telephone about an x axis, the x axis being perpendicular to the plane of the display" as recited in new claim 27. Kaplan merely discloses controlling the cursor using tilt and rotation. Kaplan does not disclose controlling the cursor using a 'yaw' movement.

Additionally, it would not be obvious to a person skilled in the art to adapt the device in Kaplan to fall within the scope of claim 27 because the device in Kaplan already enables a user to fully control the cursor. Consequently, a person skilled in the art would not be motivated to adapt the device in Kaplan to provide additional control. Therefore, claim 27

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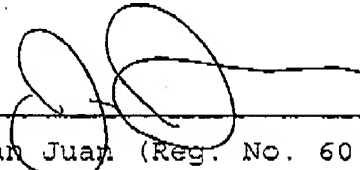
is not obvious when viewed in the light of the cited prior art documents.

Applicants' also submit that neither Kaplan nor Salmi disclose or suggest "wherein the processor is configured to control the display to display a menu structure including an inclinometer option, the inclinometer option being selectable by a user to cause the mobile cellular telephone to enter the inclinometer mode" as recited in claim 28.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. If there are any additional charges with respect to this Amendment or otherwise, please charge deposit account 50-1924 for any fee deficiency. Should any unresolved issue remain, the examiner is invited to call applicants' attorney at the telephone number indicated below.

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Respectfully submitted,



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